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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,120	12/31/2001	Yong Kyun Cho	P-8796	8783
27581	7590	06/02/2004	EXAMINER	
MEDTRONIC, INC. 710 MEDTRONIC PARKWAY NE MS-LC340 MINNEAPOLIS, MN 55432-5604			SCHAETZLE, KENNEDY	
			ART UNIT	PAPER NUMBER
			3762	

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/040,120	Applicant(s) CHO ET AL.	
	Examiner Kennedy Schaetzle	Art Unit 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/1,4/1,6/23</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION
Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10, drawn to an automatic rate response sensor mode switch, classified in class 600, subclass 301.
 - II. Claims 11-20, drawn to a method of performing sensor mode switching (and corresponding computer readable medium for storing instructions for performing the method), classified in class 600, subclass 301.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used to practice another and materially different process such as one that detects electrode impedance and switches from one electrode to another if a break or poor contact is discovered.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Mr. Paul McDowall on May 26, 2004 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-20 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the reference to a predetermined series of movements performed by a patient (claim 4), and a null value signal (claim 10) cannot be found.

Claim Objections

5. Claim 9 is objected to because of the following informalities: claim 9 is grammatically awkward (the phrase "means for" should be inserted after the word "said" on line 1). Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is confusing. It is not clear what it means for a structure (i.e., the means for testing status) to comprise such items as "...a predetermined series of movements performed by a patient..." or "...a comparison of output signal..." It would appear necessary for the applicant to recite *means for comparing*, *a means for checking an impedance*, etc..

It is also not clear what the reference to a predetermined series of movements is implying in regards to the operation of the device, such that a determination of the scope of the claim can be made.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3762

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 and 4-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hafelfinger et al. (Pat. No. 5,003,975).

Hafelfinger et al. disclose a plurality of integrated sensors (atrial, ventricular and CAN electrodes), a means for testing the status of said sensors (element 90 and associated circuitry shown in Fig. 3), and means for isolating and switching sensors to decouple sensors that fail the test (element 92 and associated control structure)(see also col. 4, lines 10-28).

Regarding claim 4, use of the alternative “or” on line 7 implies that if at least one of the items is found, then the limitations of the claim are met. Clearly Hafelfinger et al. at least show an impedance check of at least one of the plurality of integrated sensors (see element 90).

Regarding claim 5, note col. 4, lines 29-41 and col. 4, lines 65-68. The examiner considers a change in programming such as via physician programmer 86 to be a manual invocation of the testing means, while the periodic test invoked by the control microprocessor as discussed on the bottom of col. 4 is considered to be automatic (i.e., without operator input).

The limitations of claims 6 and 7 are clearly anticipated.

Regarding claim 8, the examiner considers the pacing/sensing electrodes to be activity sensors in that they detect cardiac activity (see col. 11, lines 5 and 6 for example), and impedance sensors in that they are used to detect impedance changes.

Regarding claim 9, the examiner considers it inherent that any sensor that is switched out of the circuit by configuration switch 80 also has its electrical coupling to the medical device interrupted (i.e., the sensor will no longer be able to pace or sense).

Concerning claim 10, the examiner considers it inherent that a “null value” signal will be provided from a sensor that is disconnected.

10. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Armstrong (Pat. No. 5,607,455).

Regarding claim 1, Armstrong discloses a plurality of integrated sensors (the various electrodes) coupled to a medical device (e.g., an AICD), means for testing the status of said sensors (element 40 and associated circuitry), and means for isolating and switching sensors to decouple sensors that fail the test (see element 28 and also col. 6, lines 39-61). The examiner considers the electrodes to be sensors in that they can be used to sense impedance.

Regarding claims 2 and 3, Armstrong teaches that sensors may be switched in or out of the circuit depending on the detected conditions (which may include temporary events such as discussed in col. 3, lines 28-42). The switching is therefore fixed until a condition dictates that an additional sensor is to be recoupled to the circuit, or a remaining sensor is to be switched out of the circuit.

Regarding claim 4, similar comments to those made in the rejection under Hafelfinger et al. apply here as well, with element 40 performing the impedance check of at least one of the plurality of integrated sensors.

In reference to claim 5, note col. 9, lines 7-11.

The limitations of claims 6 and 7 are clearly anticipated.

Regarding claim 8, the examiner considers the electrodes of Armstrong to be at least impedance sensors.

Concerning claims 9 and 10, note col. 6, lines 50-55. As stated above, the examiner considers a sensor that is electrically removed or disconnected from the system to provide a null signal.

Information Disclosure Statement

11. The reference to the website on the IDS submitted April 1, 2002 could not be considered because the URL is invalid. Also, the foreign reference documents were not considered because a copy of each reference has not been received as per the requirements of §1.98.

Conclusion

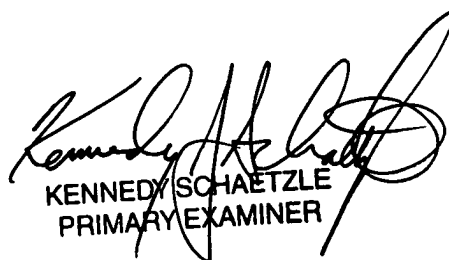
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kennedy Schaetzle whose telephone number is 703 308-2211. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 703 308-5181. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KJS
May 27, 2004


KENNEDY SCHAETZLE
PRIMARY EXAMINER